

ABSTRACT OF THE DISCLOSURE

Subscriber line interface circuitry includes an integrated circuit having sense inputs for a sensed tip signal and a sensed ring signal of a subscriber loop. The integrated circuit generates a subscriber loop linefeed driver control signal in response to the sensed signals.

5 The linefeed driver does not reside with the integrated circuit. A method for monitoring power dissipation of the linefeed driver components includes the step of sampling at least one of the tip and ring signals to determine a line voltage and a line current of a selected linefeed driver component. Instantaneous power dissipation of the linefeed component is estimated and then filtered to generate an estimated junction temperature of the linefeed
10 component. In one embodiment, the linefeed driver includes a tip fuse series-coupled to the tip line and a ring fuse series-coupled to the ring line. Voltages sampled from each side of the series-coupled tip fuse resistor and the series-coupled ring fuse and resistors collectively form the sensed tip signal and sensed ring signal, respectively. This enables using the same sensing circuitry for power monitoring as well as to determine other line
15 conditions such as whether the fuses are blown without the use of separate sensing circuitry dedicated to that purpose. This approach reduces the number of pins on an integrated circuit needed to monitor power dissipation and determine pre-fuse line conditions.